

WHAT IS CLAIMED IS:

1. A method of setting up a delegated connection, the method comprising:
 establishing a TCP connection; and
 determining whether or not to delegate the TCP connection for processing
 by hardware.
2. The method of claim 1, further comprising setting up an entry in a delegated
 connection table upon determining to delegate the TCP connection.
3. The method of claim 1, wherein the step of determining is based on at least
 one characteristic of the connection.
4. The method of claim 3, wherein the characteristic is a priority specified for the
 TCP connection.
5. The method of claim 3, wherein the at least one characteristic is a duration of
 the TCP connection.
6. The method of claim 3, wherein the at least one characteristic is a frame rate
 of the TCP connection.
7. The method of claim 2, further comprising transferring user buffer information
 for the delegated connection to the hardware.
8. The method of claim 2, further comprising receiving a frame for the delegated
 connection and determining a user buffer is available.
9. The method of claim 8, further comprising uploading a portion of the frame to
 a location specified in the user buffer information.
10. The method of claim 2, further comprising receiving a frame for the
 delegated connection and determining a user buffer is not available.

11. The method of claim 10, further comprising uploading a portion of the frame to a legacy buffer.
12. A system for setting up a delegated connection, the system comprising:
 - means for establishing a TCP connection; and
 - means for determining whether or not to delegate the TCP connection for processing by hardware.
13. The system of claim 12, further comprising means for setting up an entry in a delegated connection table.
14. The system of claim 12, further comprising means for transferring user buffer information for the delegated connection to the hardware.
15. The system of claim 12, further comprising means for determining a user buffer is available.
16. The system of claim 12, further comprising means for setting a maximum segment size.
17. The system of claim 12, further comprising means for enabling and disabling acknowledgement coalescing.
18. A system for setting up a delegated connection, the system comprising:
 - a CPU configured to execute an application program and a TCP Stack,
 - the TCP Stack configured to determine whether or not to delegate a TCP connection for processing by hardware; and
 - a system memory coupled to the CPU.

19. The system of claim 18, wherein a first portion of the system memory stores at least one user buffer and a second portion of the system memory configured to store at least one legacy buffer.
20. The system of claim 19, wherein the TCP Stack provides the hardware with location information corresponding to the at least one user buffer.
21. The system of claim 20, wherein the location information includes a physical address.
22. The system of claim 20, wherein the location information includes a user buffer size.
23. The system of claim 19, wherein the first portion of the system memory is allocated to the application program.
24. The system of claim 19, wherein the second portion of the system memory is allocated to a software driver.
25. The system of claim 19, wherein the hardware is configured to process frames to produce payload data for the delegated connection set up by the TCP Stack.
26. The system of claim 25, wherein the hardware is configured to upload the payload data to one or more user buffers when user buffer location information is provided to the hardware by the application program and translated into physical address space by the TCP Stack.
27. The system of claim 25, wherein the hardware is configured to upload the payload data to a legacy buffer when user buffer location information is not provided to the hardware by the application program.

28. The system of claim 18, wherein the TCP Stack is configured to select a connection for delegation based on at least one connection characteristic.
29. The system of claim 28, wherein the at least one connection characteristic includes connection duration.
30. The system of claim 28, wherein the at least one connection characteristic includes connection frame rate.
31. The system of claim 28, wherein the at least one connection characteristic includes a connection priority.